

Claims 1-4 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as being obvious over EP 0 798 355 to Nagamoto et al. (hereinafter “Nagamoto”). The Examiner contends that Nagamoto discloses “a pressure-sensitive adhesive sheet comprising a pressure-sensitive adhesive layer and a photocurable resin substrate composed of the urethane acrylate oligomer and a photocurable resin substrate composed of the urethane acrylate oligomer and polyene thiol resin in Applicants’ preferred embodiment as noted on page six of the specification.” While maintaining this stance, the Examiner indicates that Nagamoto is the “closest prior art” and that Nagamoto discloses an “identical coated article” to the present invention.

Applicants again note that the cited European application to Nagamoto is owned by the same Assignee as the present application, namely, Lintec Corporation.

Nagamoto discloses a base material for adhesive tape having a flat surface and “less thickness” than conventional materials. The base material has an adhesive layer formed thereon, which includes a radiation cured material which is prepared by curing a mixture of urethane acrylate oligomer and reactive dilute monomer. Such a material has a breaking elongation of more than 10%, preferably more than 100%. Applicants again respectfully note that Nagamoto fails to disclose, teach or in any way mention the dynamic viscosity property as claimed in the present invention. Further, Nagamoto does not disclose that such a pressure sensitive adhesive sheet should be able to precisely follow the irregularities, due to bumps and the like, of an adhered wafer surface, enabling smooth back grinding of the adhered surface.

The Examiner indicates that “the amendment to the performance parameter range [$\tan \delta$] in claim 1 has eliminated the Examiner’s obviousness argument that the parameter’s range was not sufficiently distant from the range value which is found in the tested example of the reference.” Nagamoto does not mention, teach or in any way suggest the required $\tan \delta$ property of the base material of the pressure sensitive adhesive sheet of the present invention nor its ability

to precisely follow the irregularities of an adhered wafer surface. “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference.” MPEP § 2131 quoting Verdegaal Bros. v. Union Oil Co. of California 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). As the Examiner has conceded, the tan δ range is now sufficiently distant from the range value found in the tested example. Therefore, the tan δ claim element cannot be held to have been either expressly or inherently described by Nagamoto. Since Nagamoto does not mention, teach or in any way suggest each and every element as set forth in the claims, Nagamoto does not anticipate claims 1-4. Accordingly, the rejection of claims 1-4 under 35 U.S.C. § 102(b) should be withdrawn.

Further, the Examiner’s indication that the tan δ range in claim 1 is sufficiently distant from the range value found in the tested example of the reference indicates that this element of the invention is not obvious over Nagamoto. Nagamoto does not mention, teach or in any way suggest the required tan δ property of the base material of the pressure sensitive adhesive sheet of the present invention nor its ability to precisely follow the irregularities of an adhered wafer surface. Obviousness cannot be established from “the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination.” In re Napier, 55 F.3d 1568, 1573, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996). “The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification.” In re Laskowski, 871 F.2d 115, 117, 10 USPQ2d 1397, 1399 (Fed. Cir. 1989). As Nagamoto is silent to the claimed tan δ range, it cannot be held to have suggested the desirability of modifying the presently claimed pressure sensitive adhesive sheet to include the claimed tan δ range. Therefore, the rejection of claims 1-4 under 35 U.S.C. § 103(a) should be withdrawn.

New claims 5-8 are directed to particular embodiments of the present pressure sensitive adhesive sheet where the adherend has a surface with a height difference of at least 30

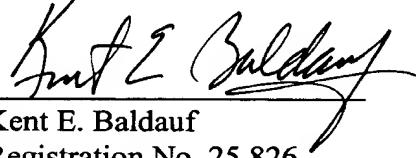
µm and where the adherend is a semiconductor wafer which is worked by grinding the back of the semiconductor wafer. Nagamoto is silent as to the problem associated with the adherend having a surface with large surface irregularities. Therefore, claims 5-8 are novel.

As the pressure sensitive adhesive sheet as claimed in claims 1 and 2 is patentable, the methods of use as claimed in claims 3 and 4 are, therefore, also patentable.

Accordingly, in view of the foregoing remarks, it is believed that the present application is in condition for allowance. Reconsideration of the rejections and allowance of claims 1-8 are respectfully requested.

Respectfully submitted,

WEBB ZIESENHEIM, LOGSDON
ORKIN & HANSON, P.C.

By: 

Kent E. Baldauf
Registration No. 25,826
Attorney for Applicants
700 Koppers Building
436 Seventh Avenue
Pittsburgh, PA 15219-1818
Telephone: (412) 471-8815
Facsimile: (412) 471-4094
E-mail: webblaw@webblaw.com